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fore, but the nuclei of the ascogonium were observed fusing in pairs, a condition also found in *Humaria*. This fusion occurs at various stages in the development of the ascogonium, either when it is very young or very old, and not at a certain stage in its development, as described for *Pyronema*. Since *Pyronema* possesses a functioning trichogyne and fertilization occurs by the fusion of sexual nuclei, Miss FRASER would regard *Lachnea stercorea* as intermediate between *Pyronema* and *Humaria*, in which no trichogyne is present. A much-branched ascogenous hyphal system is formed from the ascogonium in the usual fashion, the asci arising from the binucleate subterminal cells. The two nuclei fuse to form the ascus nucleus, which divides by successive divisions to form the nuclei of the eight ascospores.—J. B. OVERTON.

**Polymorphism of Hymenomycetes.**—Some interesting results bearing on the polymorphism of the Basidiomycetes were obtained by LYMAN<sup>14</sup> in a series of cultures. It is stated that about 75 species belonging to the Polyporaceae, Hydnaceae, and Thelephoraceae were grown in pure cultures and that about 40 per cent. of these possess some secondary method of reproduction. In the present paper six species are treated, all but one belonging to the Thelephoraceae. The most interesting results were obtained in connection with two *Fungi imperfecti*: *Michenera artocreas* B. & C. and *Aegerita candida* Pers. *Michenera* was shown to be the conidial form of *Corticium subgiganteum* Berk., with which it had often been found associated. The spores of *Aegerita candida* yielded a form of Peniophora which had not been described, and consequently becomes *P. candida* (Pers.) Lyman. Several other forms of *Corticium* were found to have secondary spore forms, either conidia, chlamydospores, or bulbils. A peculiar tendency toward a differentiation of the mycelia of these fungi into juvenile and adult forms was noted in most of the species. The most pronounced example illustrating this tendency is *Corticium alutaceum*. The basidiospores of this form produce a mycelium with slender hyphae without clamp connections which bears conidiophores; and later the adult mycelium with large hyphae having clamp connections but without conidiophores. Continuous cultures of conidia produce more and more persistent juvenile mycelium. The adult mycelium is not entirely suppressed, however, if the culture has sufficient nutriment to permit continued growth.

The cultures with *Lentodium squamulosum* are of special interest, for they seem to show that this peculiar and much-discussed fungus is an autonomous plant and not, as many writers have believed, an abnormal form of *Lentinus tigrinus*. In pure cultures the spores of the fungus give rise to a mycelium which finally produces fruit-bodies having all the characters, including the peculiar chambered hymenophore, of the parent. This form produces conidia from the veil and from the margin of the young pileus. Careful studies of this kind throw much-needed light on the biology of the higher fungi, whose life-histories present many obscure points.—H. HASSELBRING.

<sup>14</sup> LYMAN, GEO. F., Culture studies on the polymorphism of Hymenomycetes. Proc. Boston Soc. Nat. Hist. 33:125-209. pls. 18-26. 1907.